

SuperMedPros Free Practice Mock Questions

MCCQE-1

1. A 65-year-old man presents with a 3-month history of progressive exertional dyspnea and lower limb swelling. On exam, his jugular venous pressure is elevated, and you hear a loud P2 with an early diastolic murmur at the left sternal border. ECG shows right ventricular hypertrophy. What is the most likely diagnosis?

- A) Pulmonary embolism
- B) Constrictive pericarditis
- C) Pulmonary hypertension secondary to left heart disease
- D) Primary pulmonary hypertension
- E) Tricuspid regurgitation

Correct answer: C

Explanation: Progressive dyspnea and lower limb edema with signs of right heart strain (elevated JVP, loud P2, RVH on ECG) suggest pulmonary hypertension. Given the common cause, it is secondary to left heart disease (e.g., left heart failure or valvular disease). Primary pulmonary hypertension is a diagnosis of exclusion.

2. A 35-year-old woman with a history of recurrent miscarriages and thrombosis presents with unilateral leg swelling and pain. Doppler ultrasound confirms deep vein thrombosis (DVT). Laboratory tests show positive lupus anticoagulant and anticardiolipin antibodies. What is the most appropriate long-term management?

- A) Low-dose aspirin only
- B) Lifelong anticoagulation with warfarin
- C) Short course of low molecular weight heparin (LMWH) only
- D) Immunosuppressive therapy with corticosteroids
- E) Inferior vena cava filter insertion

Correct answer: B

Explanation: The patient has antiphospholipid antibody syndrome with thrombotic events. Lifelong anticoagulation is indicated to prevent recurrent thrombosis. Aspirin alone is insufficient.

3. A 48-year-old man presents with sudden-onset severe chest pain radiating to his back. He is hypertensive and tachycardic. Chest X-ray shows widened mediastinum. What is the next best step?

- A) Start thrombolytic therapy immediately
- B) Arrange urgent CT angiography of the chest
- C) Perform urgent coronary angiography
- D) Start aspirin and nitroglycerin
- E) Initiate intravenous antibiotics

Correct answer: B

Explanation: Widened mediastinum and tearing chest pain suggest aortic dissection. CT angiography is the best immediate diagnostic test. Thrombolysis is contraindicated.

4. A 5-year-old child presents with a history of fever, sore throat, and a sandpaper-like rash. On examination, there is a strawberry tongue and circumoral pallor. What is the most likely diagnosis?

- A) Kawasaki disease
- B) Scarlet fever
- C) Measles
- D) Rubella
- E) Infectious mononucleosis

Correct answer: B

Explanation: Scarlet fever results from group A streptococcus producing erythrogenic toxin, causing the rash and strawberry tongue.

5. A 70-year-old woman with a history of osteoporosis falls and has a hip fracture. Post-surgery, she develops sudden shortness of breath and pleuritic chest pain. Vital signs show tachypnea and tachycardia. What is the most likely diagnosis?

- A) Pneumonia
- B) Fat embolism syndrome
- C) Acute myocardial infarction
- D) Pulmonary embolism
- E) Congestive heart failure

Correct answer: D

Explanation: Postoperative patients with immobilization are at risk of pulmonary embolism presenting with acute dyspnea and chest pain. Fat embolism is possible but more common with long bone fractures in younger patients.

6. A 28-year-old woman presents with fatigue, pallor, and spoon-shaped nails. Lab results show microcytic hypochromic anemia with low serum ferritin. What is the most likely cause?

- A) Vitamin B12 deficiency
- B) Iron deficiency anemia
- C) Anemia of chronic disease
- D) Thalassemia minor
- E) Sideroblastic anemia

Correct answer: B

Explanation: Microcytic hypochromic anemia with low ferritin is consistent with iron deficiency anemia.

7. A 60-year-old man presents with a 2-month history of hoarseness, weight loss, and chronic cough. He has a 40-pack-year smoking history. On examination, there is cervical lymphadenopathy. Which is the most appropriate initial investigation?

- A) Chest X-ray
- B) Direct laryngoscopy with biopsy
- C) CT scan of the neck
- D) Sputum cytology
- E) Flexible bronchoscopy

Correct answer: B

Explanation: Hoarseness with lymphadenopathy and smoking history raises suspicion for laryngeal cancer. Direct laryngoscopy allows visualization and biopsy.

8. A 40-year-old man complains of polyuria and polydipsia. Random blood glucose is 16 mmol/L. He is lean with no acanthosis nigricans. What is the next best step?

- A) Start metformin immediately
- B) Check fasting C-peptide and autoantibodies
- C) Prescribe low carbohydrate diet only
- D) Order HbA1c and lipid profile
- E) Initiate insulin therapy

Correct answer: B

Explanation: Young lean patient with hyperglycemia needs evaluation to differentiate type 1 from type 2 diabetes before starting treatment.

9. A 55-year-old woman presents with gradual onset proximal muscle weakness over months. Creatine kinase is elevated. She has Gottron's papules and heliotrope rash. What is the most likely diagnosis?

- A) Polymyositis
- B) Dermatomyositis
- C) Systemic lupus erythematosus
- D) Rheumatoid arthritis

- E) Inclusion body myositis

Correct answer: B

Explanation: Dermatomyositis presents with proximal weakness plus characteristic skin findings.

10. A 22-year-old man presents with fever, malaise, and painful swollen joints. He has a new heart murmur. Blood cultures grow *Streptococcus viridans*. What is the most appropriate treatment?

- A) Oral amoxicillin for 7 days
- B) Intravenous antibiotics for 4–6 weeks
- C) Immediate valve replacement surgery
- D) Aspirin and NSAIDs only
- E) Observation without treatment

Correct answer: B

Explanation: Infective endocarditis requires prolonged intravenous antibiotics. Surgery is reserved for complications.

11. A 45-year-old woman presents with fatigue, weight gain, cold intolerance, and constipation. On exam, she has dry skin, delayed relaxation of deep tendon reflexes, and a diffusely enlarged thyroid. Her TSH is elevated and free T4 is low. What is the most likely diagnosis?

- A) Graves' disease
- B) Subacute thyroiditis
- C) Hashimoto's thyroiditis
- D) Toxic multinodular goiter
- E) Thyroid cancer

Correct answer: C

Explanation: Classic hypothyroidism features with elevated TSH and low T4 suggest primary hypothyroidism, commonly due to Hashimoto's thyroiditis. The enlarged thyroid supports this autoimmune cause.

12. A 62-year-old man presents with worsening memory loss, difficulty performing daily tasks, and personality changes over 1 year. On cognitive testing, he scores poorly on recent memory and visuospatial tasks. MRI shows cortical atrophy, especially in the temporal lobes. What is the most likely diagnosis?

- A) Vascular dementia
- B) Alzheimer's disease
- C) Frontotemporal dementia
- D) Normal pressure hydrocephalus
- E) Lewy body dementia

Correct answer: B

Explanation: Gradual memory decline and temporal lobe atrophy are typical of Alzheimer's disease.

13. A 25-year-old man presents with fever, weight loss, night sweats, and a painless cervical lymph node enlargement. Biopsy shows Reed-Sternberg cells. What is the most likely diagnosis?

- A) Non-Hodgkin lymphoma
- B) Hodgkin lymphoma
- C) Tuberculous lymphadenitis
- D) Sarcoidosis
- E) Reactive lymphadenopathy

Correct answer: B

Explanation: Presence of Reed-Sternberg cells is diagnostic of Hodgkin lymphoma.

14. A 55-year-old man with type 2 diabetes presents with burning pain and numbness in both feet, worse at night. Physical exam shows decreased vibration and pinprick sensation in a stocking distribution. What is the most appropriate next step?

- A) Prescribe gabapentin
- B) Order nerve conduction studies
- C) Tighten glycemic control
- D) Start corticosteroids
- E) Refer for amputation

Correct answer: A

Explanation: Diabetic peripheral neuropathy causing neuropathic pain is managed initially with medications like gabapentin. Glycemic control is important but does not relieve symptoms immediately.

15. A 33-year-old woman presents with a malar rash, joint pain, oral ulcers, and photosensitivity. ANA test is positive. What is the most appropriate initial investigation to assess organ involvement?

- A) Chest X-ray
- B) Urinalysis with microscopy
- C) ESR and CRP
- D) Rheumatoid factor
- E) Skin biopsy

Correct answer: B

Explanation: Systemic lupus erythematosus affects kidneys early; urinalysis checks for proteinuria and hematuria to detect nephritis.

16. A 70-year-old man presents with sudden right-sided weakness and aphasia. Non-contrast CT of the head shows no hemorrhage. What is the next best step?

- A) Start aspirin immediately

- B) Administer intravenous thrombolysis if within window
- C) Arrange carotid endarterectomy urgently
- D) Start low molecular weight heparin
- E) Order MRI brain

Correct answer: B

Explanation: Ischemic stroke within the thrombolysis time window should receive IV thrombolysis unless contraindicated.

17. A 28-year-old woman presents with episodic palpitations, sweating, and headache. Her blood pressure is 180/110 mmHg. Plasma metanephrines are elevated. What is the most appropriate next step?

- A) Start beta-blocker therapy
- B) Abdominal CT scan
- C) Initiate ACE inhibitor
- D) Start calcium channel blockers
- E) Schedule adrenal biopsy

Correct answer: B

Explanation: Elevated plasma metanephrines suggest pheochromocytoma. Imaging locates the tumor before surgery.

18. A 60-year-old man with a history of chronic smoking presents with hematuria and flank pain. Ultrasound shows a mass in the kidney. What is the most likely diagnosis?

- A) Renal cell carcinoma
- B) Pyelonephritis
- C) Polycystic kidney disease
- D) Nephrolithiasis
- E) Bladder cancer

Correct answer: A

Explanation: Smoking is a risk factor for renal cell carcinoma, which presents with hematuria and a renal mass.

19. A 5-year-old child presents with fever, cough, and inspiratory stridor. He is sitting leaning forward and drooling. What is the most appropriate immediate management?

- A) Administer nebulized epinephrine
- B) Perform immediate intubation in OR
- C) Start oral antibiotics
- D) Give corticosteroids
- E) Send for chest X-ray

Correct answer: B

Explanation: Presentation suggests epiglottitis, which can cause airway obstruction; securing airway in controlled setting is priority.

20. A 45-year-old man presents with sudden severe right flank pain radiating to the groin. Urinalysis shows hematuria. What is the best initial investigation?

- A) Abdominal ultrasound
- B) Non-contrast CT KUB
- C) Intravenous pyelogram
- D) MRI abdomen
- E) Urine culture

Correct answer: B

Explanation: CT KUB without contrast is the gold standard to detect ureteric stones causing acute flank pain.

21. A 50-year-old man presents with jaundice, pruritus, dark urine, and pale stools. His

alkaline phosphatase is elevated, and antimitochondrial antibodies are positive. What is the most likely diagnosis?

- A) Primary biliary cholangitis
- B) Primary sclerosing cholangitis
- C) Viral hepatitis
- D) Alcoholic liver disease
- E) Gallstone obstruction

Correct answer: A

Explanation: Jaundice with cholestatic pattern and positive antimitochondrial antibodies suggest primary biliary cholangitis.

22. A 30-year-old woman presents with fatigue, palpitations, and exertional dyspnea. Lab shows Hb 7 g/dL, MCV 70 fL, and low serum iron. What is the next best step in management?

- A) Start oral iron therapy
- B) Transfuse packed red cells immediately
- C) Order bone marrow biopsy
- D) Start folic acid
- E) Check vitamin B12 levels

Correct answer: A

Explanation: Microcytic anemia with low iron indicates iron deficiency anemia, treated with oral iron.

23. A 45-year-old man presents with sudden onset severe headache described as “worst ever.” CT scan shows subarachnoid hemorrhage. What is the most likely cause?

- A) Hypertensive hemorrhage
- B) Ruptured berry aneurysm

- C) Arteriovenous malformation
- D) Trauma
- E) Brain tumor bleed

Correct answer: B

Explanation: Sudden severe headache with SAH on CT often results from ruptured berry aneurysm.

24. A 60-year-old man presents with resting tremor, rigidity, and bradykinesia. He also has a shuffling gait and masked facies. What is the best initial treatment?

- A) Levodopa/carbidopa
- B) MAO-B inhibitors only
- C) Anticholinergics only
- D) Beta blockers
- E) Deep brain stimulation

Correct answer: A

Explanation: Levodopa is the first-line treatment for symptomatic Parkinson's disease.

25. A 25-year-old woman presents with episodic palpitations, sweating, and pallor. Her ECG shows paroxysmal supraventricular tachycardia (PSVT). What is the initial treatment during an episode?

- A) Valsalva maneuver
- B) Immediate IV amiodarone
- C) Oral beta blockers
- D) Cardioversion
- E) Observation only

Correct answer: A

Explanation: Valsalva maneuver is a first-line non-pharmacologic treatment for PSVT.

26. A 65-year-old man with a history of hypertension presents with sudden painless loss of vision in his left eye. Fundoscopy shows a pale retina with a cherry-red spot. What is the most likely diagnosis?

- A) Central retinal artery occlusion
- B) Central retinal vein occlusion
- C) Diabetic retinopathy
- D) Retinal detachment
- E) Optic neuritis

Correct answer: A

Explanation: Pale retina with cherry-red spot indicates central retinal artery occlusion.

27. A 35-year-old man presents with fever, productive cough, night sweats, and weight loss. Chest X-ray shows upper lobe cavitory lesions. Sputum smear is positive for acid-fast bacilli. What is the initial treatment?

- A) Isoniazid and rifampin only
- B) Isoniazid, rifampin, pyrazinamide, and ethambutol
- C) Streptomycin only
- D) Azithromycin
- E) No treatment, monitor only

Correct answer: B

Explanation: Standard initial TB treatment includes 4 drugs: isoniazid, rifampin, pyrazinamide, and ethambutol.

28. A 50-year-old woman presents with polyuria, polydipsia, and hypercalcemia. PTH is elevated. What is the most likely diagnosis?

- A) Secondary hyperparathyroidism
- B) Primary hyperparathyroidism

- C) Vitamin D intoxication
- D) Malignancy-associated hypercalcemia
- E) Sarcoidosis

Correct answer: B

Explanation: Hypercalcemia with elevated PTH indicates primary hyperparathyroidism.

29. A 40-year-old woman has fatigue, dry eyes, and dry mouth. Schirmer test is positive. What is the most likely diagnosis?

- A) Sjogren's syndrome
- B) Rheumatoid arthritis
- C) Systemic sclerosis
- D) SLE
- E) Polymyositis

Correct answer: A

Explanation: Sicca symptoms with positive Schirmer test indicate Sjogren's syndrome.

30. A 70-year-old man presents with difficulty swallowing solids and liquids. Manometry shows absent peristalsis and incomplete lower esophageal sphincter relaxation. What is the most likely diagnosis?

- A) Achalasia
- B) Esophageal cancer
- C) GERD
- D) Esophageal stricture
- E) Diffuse esophageal spasm

Correct answer: A

Explanation: Manometry findings are diagnostic of achalasia.

31. A 25-year-old man presents with recurrent painful oral and genital ulcers and uveitis. What is the most likely diagnosis?

- A) Behcet's disease
- B) HSV infection
- C) Reactive arthritis
- D) Herpes zoster
- E) Crohn's disease

Correct answer: A

Explanation: The triad of oral ulcers, genital ulcers, and uveitis is typical for Behcet's disease.

32. A 60-year-old woman presents with dyspnea and a dry cough. Chest CT shows bilateral ground-glass opacities and honeycombing predominantly in the lower lobes. What is the most likely diagnosis?

- A) Idiopathic pulmonary fibrosis
- B) Sarcoidosis
- C) Pneumonia
- D) Pulmonary edema
- E) Lung cancer

Correct answer: A

Explanation: Honeycombing with basal predominance is characteristic of idiopathic pulmonary fibrosis.

33. A 22-year-old woman presents with fever, sore throat, and generalized lymphadenopathy. Monospot test is positive. What is the causative agent?

- A) Cytomegalovirus
- B) Epstein-Barr virus
- C) Herpes simplex virus

- D) Influenza virus
- E) Human herpesvirus 6

Correct answer: B

Explanation: Infectious mononucleosis is caused by Epstein-Barr virus.

34. A 35-year-old man presents with polyuria and polydipsia. His fasting glucose is 7.8 mmol/L, and HbA1c is 6.2%. What is the most likely diagnosis?

- A) Type 1 diabetes mellitus
- B) Type 2 diabetes mellitus
- C) Impaired fasting glucose (pre-diabetes)
- D) Diabetes insipidus
- E) Metabolic syndrome

Correct answer: C

Explanation: Fasting glucose between 6.1 and 6.9 mmol/L and HbA1c below 6.5% indicates impaired fasting glucose.

35. A 50-year-old man presents with jaundice, dark urine, and right upper quadrant pain. Ultrasound shows gallstones and a thickened gallbladder wall. What is the diagnosis?

- A) Acute cholecystitis
- B) Chronic cholecystitis
- C) Choledocholithiasis
- D) Ascending cholangitis
- E) Gallbladder cancer

Correct answer: A

Explanation: Gallstones plus RUQ pain and wall thickening indicates acute cholecystitis.

36. A 70-year-old man presents with resting tremor, rigidity, and slow movements. He also has constipation and anosmia. What is the most likely diagnosis?

- A) Parkinson's disease
- B) Multiple sclerosis
- C) Essential tremor
- D) Huntington's disease
- E) Alzheimer's disease

Correct answer: A

Explanation: Parkinson's disease commonly presents with these motor and non-motor symptoms.

37. A 60-year-old woman presents with bone pain, anemia, and renal failure. Serum protein electrophoresis shows a monoclonal spike. What is the diagnosis?

- A) Multiple myeloma
- B) Waldenstrom macroglobulinemia
- C) Chronic lymphocytic leukemia
- D) Hodgkin lymphoma
- E) Amyloidosis

Correct answer: A

Explanation: Classic features with monoclonal spike indicate multiple myeloma.

38. A 45-year-old woman presents with episodes of flushing, diarrhea, and wheezing. Urine shows increased 5-HIAA levels. What is the diagnosis?

- A) Carcinoid syndrome
- B) Pheochromocytoma
- C) Zollinger-Ellison syndrome
- D) Medullary thyroid carcinoma

- E) Cushing's syndrome

Correct answer: A

Explanation: Flushing and elevated 5-HIAA indicate carcinoid syndrome.

38. A 45-year-old woman presents with episodes of flushing, diarrhea, and wheezing. Urine shows increased 5-HIAA levels. What is the diagnosis?

- A) Carcinoid syndrome
- B) Pheochromocytoma
- C) Zollinger-Ellison syndrome
- D) Medullary thyroid carcinoma
- E) Cushing's syndrome

Correct answer: A

Explanation: Flushing, diarrhea, wheezing, and elevated urinary 5-HIAA are classic signs of carcinoid syndrome.

39. A 30-year-old man presents with chest pain and dyspnea. ECG shows ST elevation in leads II, III, and aVF. What is the most likely diagnosis?

- A) Inferior myocardial infarction
- B) Anterior myocardial infarction
- C) Pericarditis
- D) Pulmonary embolism
- E) Aortic dissection

Correct answer: A

Explanation: ST elevation in leads II, III, and aVF indicates an inferior myocardial infarction.

40. A 60-year-old man with history of smoking presents with hematuria and weight loss. CT scan shows a mass in the renal pelvis. What is the most likely diagnosis?

- A) Renal cell carcinoma
- B) Transitional cell carcinoma
- C) Wilms tumor
- D) Bladder carcinoma
- E) Benign renal cyst

Correct answer: B

Explanation: A mass in the renal pelvis causing hematuria is usually transitional cell carcinoma.

41. A 28-year-old woman presents with fatigue, pallor, and glossitis. Lab shows macrocytic anemia with hypersegmented neutrophils. What is the most likely diagnosis?

- A) Iron deficiency anemia
- B) Vitamin B12 deficiency
- C) Folate deficiency
- D) Thalassemia
- E) Sideroblastic anemia

Correct answer: B

Explanation: Macrocytic anemia with hypersegmented neutrophils and glossitis points to vitamin B12 deficiency.

42. A 50-year-old man presents with difficulty swallowing and weight loss. Upper endoscopy reveals an ulcerated lesion in the lower esophagus. Biopsy shows squamous cell carcinoma. Which risk factor is most strongly associated?

- A) Barrett's esophagus
- B) Alcohol and tobacco use
- C) GERD
- D) Achalasia

- E) Hiatal hernia

Correct answer: B

Explanation: Squamous cell carcinoma of the esophagus is strongly linked to alcohol and tobacco.

43. A 70-year-old woman presents with severe sudden chest pain radiating to the back. Blood pressure is 180/100 mmHg in the right arm and 130/90 mmHg in the left arm. What is the most likely diagnosis?

- A) Acute myocardial infarction
- B) Aortic dissection
- C) Pulmonary embolism
- D) Pericarditis
- E) Tension pneumothorax

Correct answer: B

Explanation: Chest pain with unequal blood pressure between arms suggests aortic dissection.

44. A 35-year-old woman presents with fatigue, weight gain, cold intolerance, and constipation. Lab shows elevated TSH and low free T4. What is the diagnosis?

- A) Graves' disease
- B) Hashimoto's thyroiditis
- C) Subacute thyroiditis
- D) Thyroid adenoma
- E) Thyroid carcinoma

Correct answer: B

Explanation: Elevated TSH with low free T4 indicates hypothyroidism, common in Hashimoto's thyroiditis.

45. A 40-year-old man presents with chest pain, and his ECG shows ST elevation in leads V1 to V4. What coronary artery is most likely occluded?

- A) Right coronary artery
- B) Left anterior descending artery
- C) Left circumflex artery
- D) Posterior descending artery
- E) Marginal artery

Correct answer: B

Explanation: ST elevation in leads V1-V4 indicates anterior wall MI from LAD artery occlusion.

46. A 25-year-old woman presents with polyuria and polydipsia. Random blood glucose is 22 mmol/L, and urine is positive for ketones. What is the most likely diagnosis?

- A) Type 1 diabetes mellitus
- B) Type 2 diabetes mellitus
- C) Diabetes insipidus
- D) Renal failure
- E) Hyperthyroidism

Correct answer: A

Explanation: Hyperglycemia with ketonuria and symptoms point to type 1 diabetes.

47. A 60-year-old man presents with sudden onset weakness of the right arm and leg. CT scan shows an ischemic stroke in the left middle cerebral artery territory. Which clinical feature is most expected?

- A) Left-sided hemiparesis
- B) Right-sided hemiparesis
- C) Bilateral weakness

- D) Left homonymous hemianopia
- E) Ataxia

Correct answer: B

Explanation: Left MCA stroke causes right-sided hemiparesis and sensory loss.

48. A 45-year-old woman has a history of episodic palpitations, sweating, and headaches. Her blood pressure is persistently elevated. Urine catecholamines are elevated. What is the diagnosis?

- A) Pheochromocytoma
- B) Essential hypertension
- C) Hyperthyroidism
- D) Cushing's syndrome
- E) Carcinoid syndrome

Correct answer: A

Explanation: Episodic hypertension with elevated catecholamines suggests pheochromocytoma.

49. A 60-year-old man presents with chronic cough, hemoptysis, and weight loss. Chest X-ray shows a central lung mass. Biopsy shows small round blue cells with scant cytoplasm. What is the diagnosis?

- A) Small cell lung carcinoma
- B) Adenocarcinoma of the lung
- C) Squamous cell carcinoma
- D) Large cell carcinoma
- E) Mesothelioma

Correct answer: A

Explanation: Small cell carcinoma is a centrally located lung tumor with small round blue cells on biopsy.

50. A 55-year-old man presents with difficulty initiating urination and dribbling. Digital rectal exam reveals an enlarged, firm prostate. PSA is mildly elevated. What is the most likely diagnosis?

- A) Benign prostatic hyperplasia
- B) Prostate adenocarcinoma
- C) Prostatitis
- D) Bladder cancer
- E) Urinary tract infection

Correct answer: A

Explanation: Enlarged prostate with lower urinary symptoms and mildly raised PSA suggests benign prostatic hyperplasia.



NAC OSCE Mocks Style Questions

1. Station: History Taking – Abdominal Pain

- Patient: 35-year-old woman with 3-day history of right lower quadrant abdominal pain and fever.
- Task: Take a focused history for suspected appendicitis.

Key points to cover:

- Onset, location, character, radiation of pain
- Associated symptoms: nausea, vomiting, anorexia, bowel changes
- Fever and urinary symptoms
- Past medical/surgical history
- Social history (travel, pregnancy, menstrual history)

Question: What features increase your suspicion for appendicitis?

2. Station: Physical Examination – Cardiovascular System

- Patient: 60-year-old man with chest pain.
- Task: Perform a cardiovascular exam.

Key steps:

- Inspect for cyanosis, clubbing, scars
- Palpate carotid pulses, apex beat
- Auscultate heart sounds (focus on murmurs, gallops)
- Examine peripheral pulses and signs of heart failure

Question: What murmurs do you listen for in suspected aortic stenosis?

3. Station: Communication – Breaking Bad News

- Scenario: Inform a patient about a diagnosis of early-stage breast cancer.
- Task: Explain diagnosis empathetically and discuss next steps.

Key elements:

- Use simple language
- Assess patient's understanding and emotions
- Provide information in small chunks
- Allow time for questions and concerns
- Discuss treatment options and referrals

Question: How do you respond if the patient becomes upset?

4. Station: Clinical Procedure – Venipuncture

- Task: Perform safe venipuncture on a mannequin arm.

Steps:

- Explain procedure to patient

- Select suitable vein and apply tourniquet
- Clean site, insert needle at correct angle
- Collect blood, release tourniquet, withdraw needle
- Apply pressure and bandage site

Question: What complications should you monitor after venipuncture?

5. Station: Data Interpretation – Chest X-ray

- Task: Interpret a chest X-ray showing left lower lobe consolidation.

Points to address:

- Identify consolidation location
- Suggest diagnosis (likely pneumonia)
- Describe other findings (air bronchograms, pleural effusion)
- Recommend management

Question: What are common pathogens causing lobar pneumonia?

6. Station: Clinical Reasoning – Shortness of Breath

- Patient: 70-year-old man with progressive dyspnea, orthopnea, and leg swelling.
- Task: Formulate a differential diagnosis and initial management plan.

Key considerations:

- Heart failure, COPD, pulmonary embolism
- Physical signs to look for (crackles, JVP, edema)
- Initial investigations (ECG, CXR, BNP, blood tests)
- Treatment (diuretics, oxygen)

Question: What features differentiate heart failure from COPD exacerbation?

NAC OSCE Mocks Style Answers

1. Appendicitis suspicion features:

- Pain started around umbilicus then localized to right lower quadrant
 - Anorexia, nausea, vomiting
 - Fever $>38^{\circ}\text{C}$
 - Rebound tenderness, guarding
 - Elevated WBC on labs (if available)
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2. Aortic stenosis murmurs:

- Harsh, crescendo-decrescendo systolic murmur
 - Best heard at right upper sternal border
 - Radiates to carotids
 - Associated with delayed and diminished carotid upstroke
-

3. Responding to upset patient:

- Acknowledge emotions (“I can see this is difficult”)
 - Pause and allow silence
 - Offer support and reassurance
 - Avoid rushing or dismissing concerns
 - Ask if they want to discuss further or have a support person
-

4. Venipuncture complications:

- Hematoma
- Infection
- Nerve injury

- Phlebitis
 - Syncope
-

5. Common lobar pneumonia pathogens:

- Streptococcus pneumoniae (most common)
 - Haemophilus influenzae
 - Moraxella catarrhalis
 - Staphylococcus aureus (post-viral)
-

6. Differentiating heart failure from COPD exacerbation:

- Heart failure: orthopnea, elevated JVP, peripheral edema, S3 gallop
 - COPD: wheezing, prolonged expiratory phase, history of smoking, clubbing
 - BNP elevated in heart failure
 - Chest X-ray shows pulmonary edema in heart failure, hyperinflation in COPD
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7. Patient refuses surgery:

- Respect patient autonomy
 - Ensure patient is fully informed of risks and consequences
 - Explore reasons for refusal
 - Involve family or ethics team if appropriate
 - Document discussion carefully
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8. Antibiotic prescribing in penicillin allergy:

- Use alternative such as macrolides (e.g., azithromycin) or fluoroquinolones
- Avoid beta-lactams if true allergy
- Monitor for adverse reactions

9. Upper motor neuron lesion signs:

- Spasticity (increased tone)
- Hyperreflexia
- Positive Babinski sign
- Weakness with preserved muscle bulk
- Pronounced clonus

10. Advice for patient not ready to quit smoking:

- Use motivational interviewing: ask about pros and cons of smoking
- Respect their stage of change
- Provide information on risks without pressure
- Offer support when ready
- Schedule follow-up to revisit discussion

